

Viking Technologies, LLC v. Broadtech, LLC et al. (2:20-CV-357)

Viking Technologies, LLC v. Asurion, LLC et al., (2:20-CV-358)

Viking Technologies, LLC v. Clover Technologies Group, LLC et al. (2:20-CV-359)

Defendants' Claim Construction

Judge Gilstrap

Tuesday, June 15, 2021

“biasing”

“Biasing”

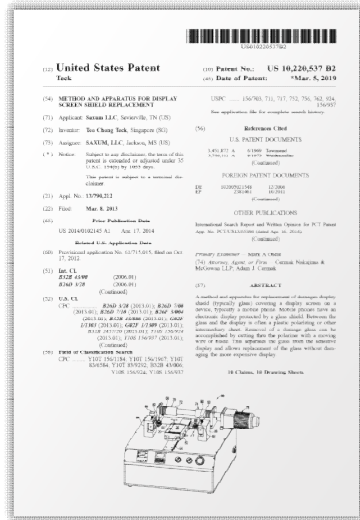
Claim Language	Defendants’ Construction	Plaintiff’s Construction
“biasing” (All Asserted Claims)	“applying a force to the cutting device/wire to hold it in a given position”	“applying a force to the cutting device/wire”

Plaintiff defined “biasing” in prosecution to mean “applying a force to the cutting device/wire to hold it in a given position.”

ISSUE:

- Does “biasing” mean only “applying a force” or also the force holds the wire “in a given position.”

Claims do not help define “biasing”



1. A method of removing a protective glass top surface from a display unit having a glass top, an electronic display portion, and a planar intermediate layer therebetween, the method comprising the steps of:

fixing the display unit in a carriage with the intermediate layer being exposed on all sides;
aligning a cutting device in a coplanar relationship with the intermediate layer;

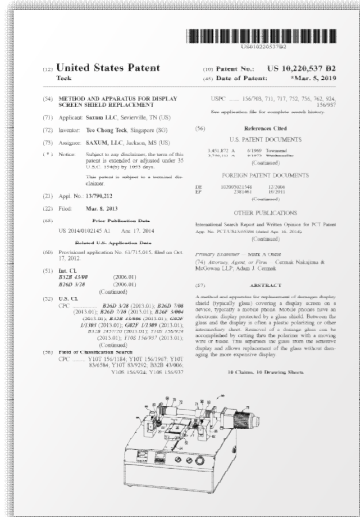
biasing the cutting device in the intermediate layer adjacent the electronic display portion and away from the glass;

driving the cutting device into the intermediate layer while moving the cutting device and display unit relative to each other along an axis generally orthogonal to the cutting device; and

advancing the cutting device into the intermediate layer to separate the glass top from the electronic display portion.

Specification supports construction that the force of the wire helps “maintain” and “keep” the wire held in a given position

The preferred method of separating the electronic display unit (the only expensive and valuable component) for reuse is **to bias the wire or blade** against/adjacent or close to the plane adjacent the electronic display, i.e. the surface of the electronic display and **maintaining cutting element** in a coplanar relationship with that plane adjacent the electronic display. This can be accomplished with a wire by **keeping it taut and aligning it carefully to maintain** the coplanar relationship. A slight bias of the wire against the electronic display can be helpful in **keeping it as far from the glass layer as possible** to prevent encountering/snagging of the glass layer 26. Snagging is a risk if the glass is broken,



'537 Patent, 6:10-21.

Plaintiff defined “biasing” in prosecution to include the application of force to hold the cutting device in a given position

Applicant clarified “biasing”:

Those of ordinary skill in the art readily understand that the term “biasing” requires the application of some force, in this mechanical engineering art:

www.dictionaryofengineering.com/definition/bias.html

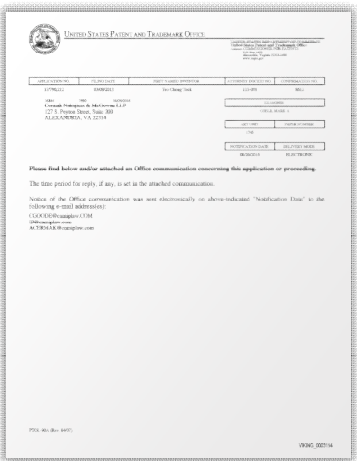
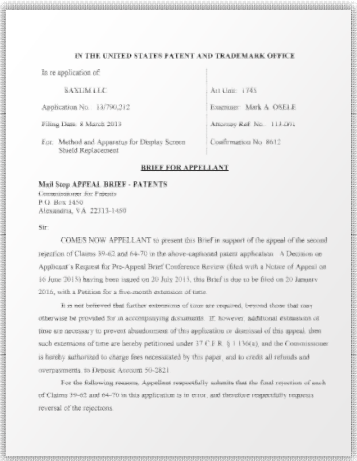
bias: The force applied to a relay to hold it in a given position

Ex. E. 1/20/16
Applicant Br at 4-5.

Examiner adopts Applicant’s definition:

“plus any additional amount as desired by an operator.” It appears that Sampica et al. is teaching that the cutting element can be biased adjacent the electronic display portion and away from the glass, especially in view of paragraph 0040 which teaches that one layer of the laminated substrate assembly may contain an amount of adhesive not removed by the elongated cutting member. This would occur if the cutting element were biased adjacent one layer of the laminated substrate using the customary and ordinary definition of the application of some force in the context of a machine and mechanical manipulation of articles or the definition in the on line dictionary of engineering: The force applied to a relay to hold it in a given position.

Ex. F. 8/26/16 Non-Final
Office Action at 7.

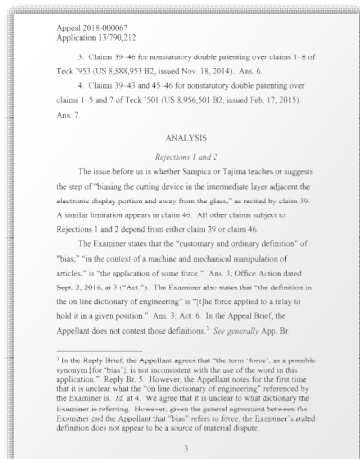
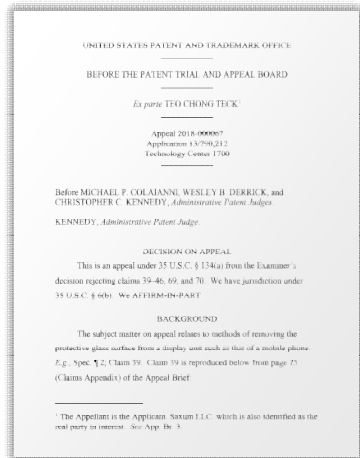


Decision on Appeal:

The Examiner states that the “customary and ordinary definition” of “bias,” “in the context of a machine and mechanical manipulation of articles,” is “the application of some force.” Ans. 3; Office Action dated Sept. 2, 2016, at 3 (“Act.”). The Examiner also states that “the definition in the on line dictionary of engineering” is “[t]he force applied to a relay to hold it in a given position.” Ans. 3; Act. 6. In the Appeal Brief, the Appellant does not contest those definitions.³ See generally App. Br.

³ In the Reply Brief, the Appellant agrees that “the term ‘force’, as a possible synonym [for ‘bias’], is not inconsistent with the use of the word in this application.” Reply Br. 5. However, the Appellant notes for the first time that it is unclear what the “on line dictionary of engineering” referenced by the Examiner is. *Id.* at 4. We agree that it is unclear to what dictionary the Examiner is referring. However, given the general agreement between the Examiner and the Appellant that “bias” refers to force, the Examiner’s stated definition does not appear to be a source of material dispute.

Decision on
Appeal at 3.



“in the intermediate layer”

“in the intermediate layer”

Claim Language	Defendants' Construction	Plaintiff's Construction
“in the intermediate layer” (All Asserted Claims)	“after the cutting device/wire enters the intermediate layer”	No construction necessary

Plaintiff agrees that “biasing” only takes place after the wire enters the intermediate layer, but says no construction necessary

ISSUE:

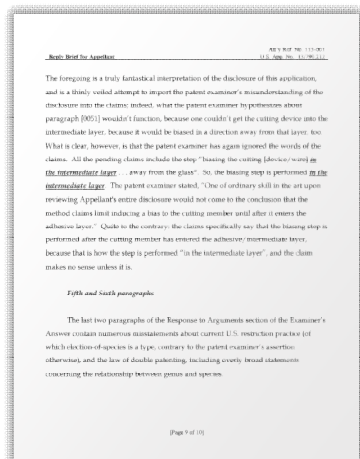
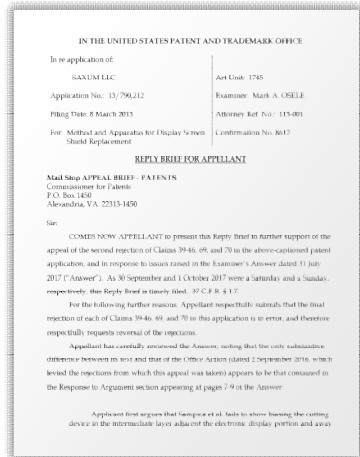
- Construction is necessary to clarify “biasing” does not take place prior to the wire entering the intermediate layer

Examiner did not understand what Viking says is clear from the claim language

Reply Brief for Appellant:

The foregoing is a truly fantastical interpretation of the disclosure of this application, and is a thinly veiled attempt to import the patent examiner's misunderstanding of the disclosure into the claims; indeed, what the patent examiner hypothesizes about paragraph [0051] wouldn't function, because one couldn't get the cutting device into the intermediate layer, because it would be biased in a direction away from that layer, too. What is clear, however, is that the patent examiner has again ignored the words of the claims. All the pending claims include the step "biasing the cutting [device/wire] in the intermediate layer . . . away from the glass". So, the biasing step is performed in the intermediate layer. The patent examiner stated, "One of ordinary skill in the art upon reviewing Appellant's entire disclosure would not come to the conclusion that the method claims limit inducing a bias to the cutting member until after it enters the adhesive layer." Quite to the contrary: the claims specifically say that the biasing step is performed after the cutting member has entered the adhesive/intermediate layer, because that is how the step is performed "in the intermediate layer", and the claim makes no sense unless it is.

Plaintiff's Reply
Brief (Dkt. No. 100)
at 9.

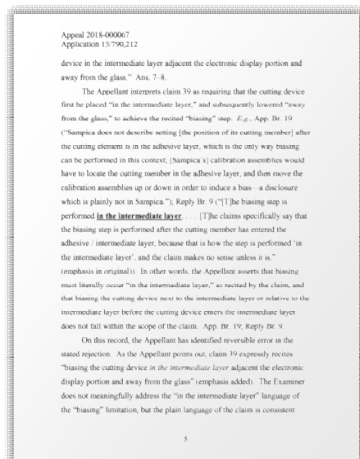
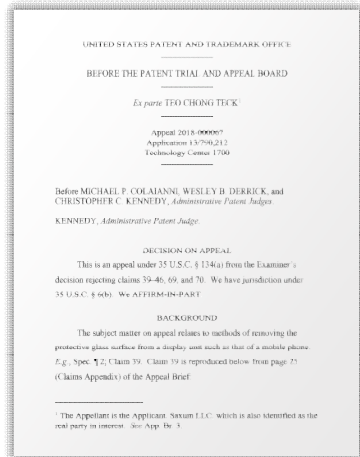


PTAB clarified that “in the intermediate layer” is temporal as well

Decision on Appeal:

The Appellant interprets claim 39 as requiring that the cutting device first be placed “in the intermediate layer,” and subsequently lowered “away from the glass,” to achieve the recited “biasing” step. *E.g.*, App. Br. 19 (“Sampica does not describe setting [the position of its cutting member] after the cutting element is in the adhesive layer, which is the only way biasing can be performed in this context; [Sampica’s] calibration assemblies would have to locate the cutting member in the adhesive layer, and then move the calibration assemblies up or down in order to induce a bias—a disclosure which is plainly not in Sampica.”); Reply Br. 9 (“[T]he biasing step is performed in the intermediate layer. . . . [T]he claims specifically say that the biasing step is performed after the cutting member has entered the adhesive / intermediate layer, because that is how the step is performed ‘in the intermediate layer’, and the claim makes no sense unless it is.” (emphasis in original)). In other words, the Appellant asserts that biasing must literally occur “in the intermediate layer,” as recited by the claim, and that biasing the cutting device next to the intermediate layer or relative to the intermediate layer before the cutting device enters the intermediate layer does not fall within the scope of the claim. App. Br. 19; Reply Br. 9.

Decision on
Appeal at 5.



“intermediate layer”

Intermediate layer

1. A method of removing a protective glass top surface from a display unit having a glass top, an electronic display portion, and an intermediate layer therebetween, the display unit defining an axis extending along said intermediate layer, the method comprising the steps of:
 - fixing the display unit in a carriage with the intermediate layer being exposed on all sides;
 - aligning a cutting device in a coplanar relationship with the intermediate layer;
 - biasing the cutting device in the intermediate layer adjacent the electronic display portion and away from the glass,
 - driving the cutting device into the intermediate layer while moving the cutting device and display unit relative to each other along a diagonal direction relative to said display unit axis;
 - advancing the cutting device into the intermediate layer to separate the glass top from the electronic display portion.

Intermediate Layer

Claim Language	Defendants' Construction	Plaintiff's Construction
"intermediate layer" (All Asserted Claims)	"the material between the upper and lower surfaces of the electronic display portion and the glass layer where the thickness of the layer is defined by the distance between those two surfaces"	No construction necessary

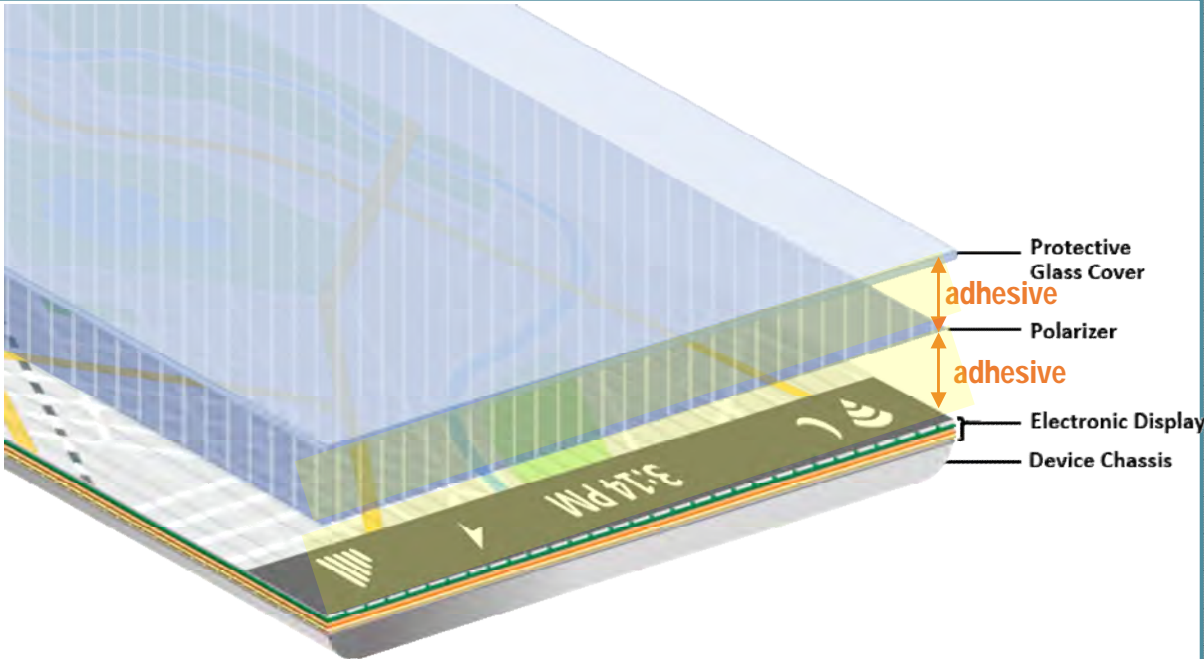
ISSUE:

- Is the intermediate layer everything between the glass and electronic display?

Specification Defines the Term

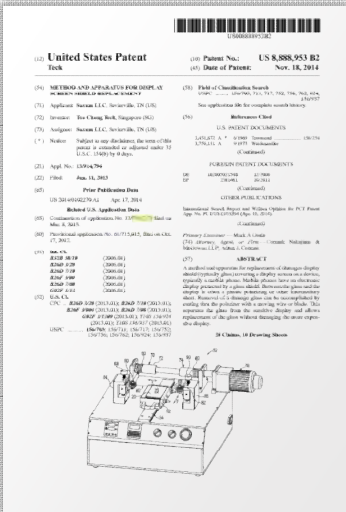
in the inventive concepts disclosed herein. The intermediate layer is bounded by upper and lower interface planes which are adjacent the electronic display portion and the glass layer and distance between those planes is the thickness of the layer. Upper and lower are terms which can be interchange-

'953 Patent, 5:49-53.



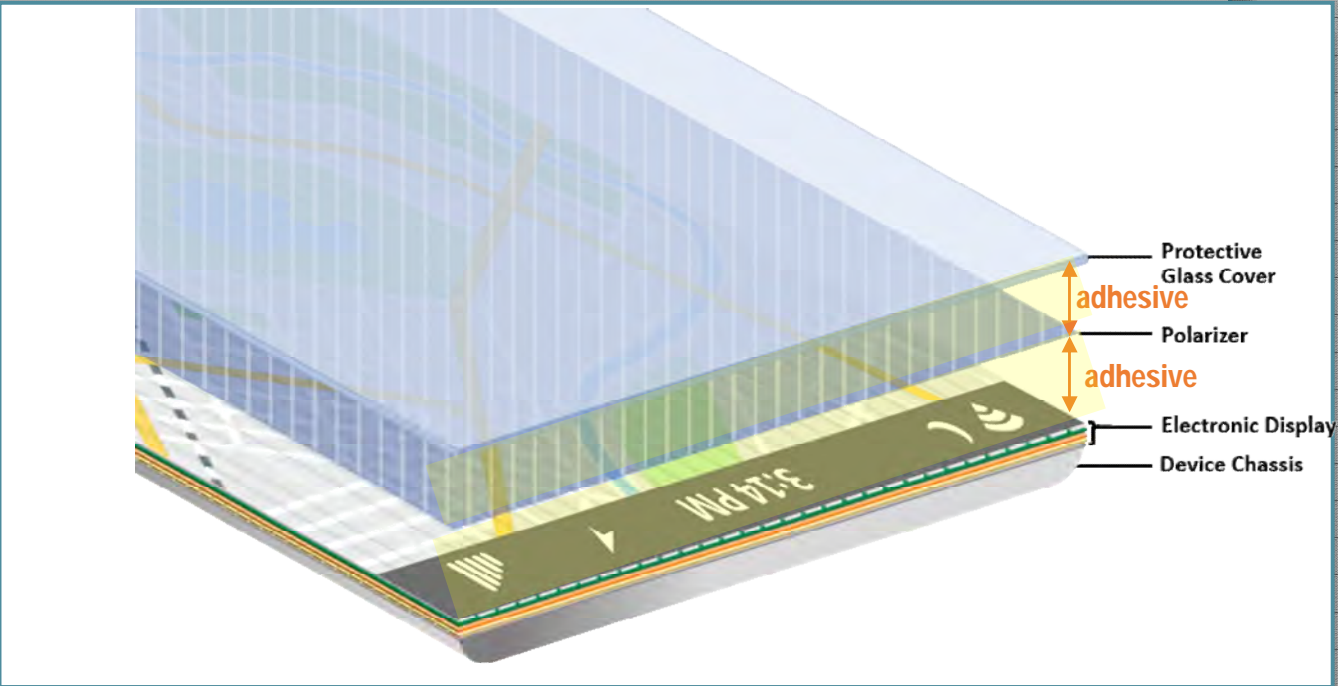
Defendants' Claim Construction Tutorial.

Intermediate Layer Is Where the Element is Biased



1. A method of removing a protective glass top surface from a display unit having a glass top, an electronic display portion, and an intermediate layer therebetween, the display unit defining an axis extending along said intermediate layer, the method comprising the steps of:
- fixing the display unit in a carriage with the intermediate layer being exposed on all sides;
 - aligning a cutting device in a coplanar relationship with the intermediate layer;
 - biasing the cutting device in the intermediate layer adjacent the electronic display portion and away
- ...

'953 Patent, Cl. 1.



Defendants' Claim Construction Tutorial.

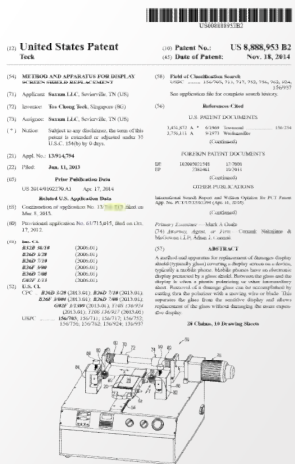
Plaintiff says “Preamble” Defines the Claim

In addressing this term, Defendants once again ignore the language of the claims. As previously demonstrated, the claims themselves define the “display unit” and the “intermediate layer.” (Opening CC Br., D.I. 94 at 8–9.) For example, the “intermediate layer” of claim 1 of the ‘953 Patent is defined as the portion of the “display unit” between the “glass top” and the “display portion.” (’953 Patent, D.I. 94-1 at 9:46–48.) Defendants seek to redefine the claim because the

Plaintiff’s Reply Br. (Dkt. No. 100) at 8.

1. A method of removing a protective glass top surface from a display unit having a glass top, an electronic display portion, and an intermediate layer therebetween, the display unit defining an axis extending along said intermediate layer, the method comprising the steps of:
 - fixing the display unit in a carriage with the intermediate layer being exposed on all sides;
 - aligning a cutting device in a coplanar relationship with the intermediate layer;
 - biasing the cutting device in the intermediate layer adjacent the electronic display portion and away
 - ...

’953 Patent, Cl. 1.



“coplanar” terms

Coplanar Terms in Claim 1 of the '953 Patent

1. A method of removing a protective glass top surface from a display unit having a glass top, an electronic display portion, and an intermediate layer therebetween, the display unit defining an axis extending along said intermediate layer, the method comprising the steps of:
 - fixing the display unit in a carriage with the intermediate layer being exposed on all sides;
 - aligning a cutting device in a coplanar relationship with the intermediate layer;
 - biasing the cutting device in the intermediate layer adjacent the electronic display portion and away from the glass,
 - driving the cutting device into the intermediate layer while moving the cutting device and display unit relative to each other along a diagonal direction relative to said display unit axis;
 - advancing the cutting device into the intermediate layer to separate the glass top from the electronic display portion.

'953 Patent, Cl. 1.

Disputed Issues

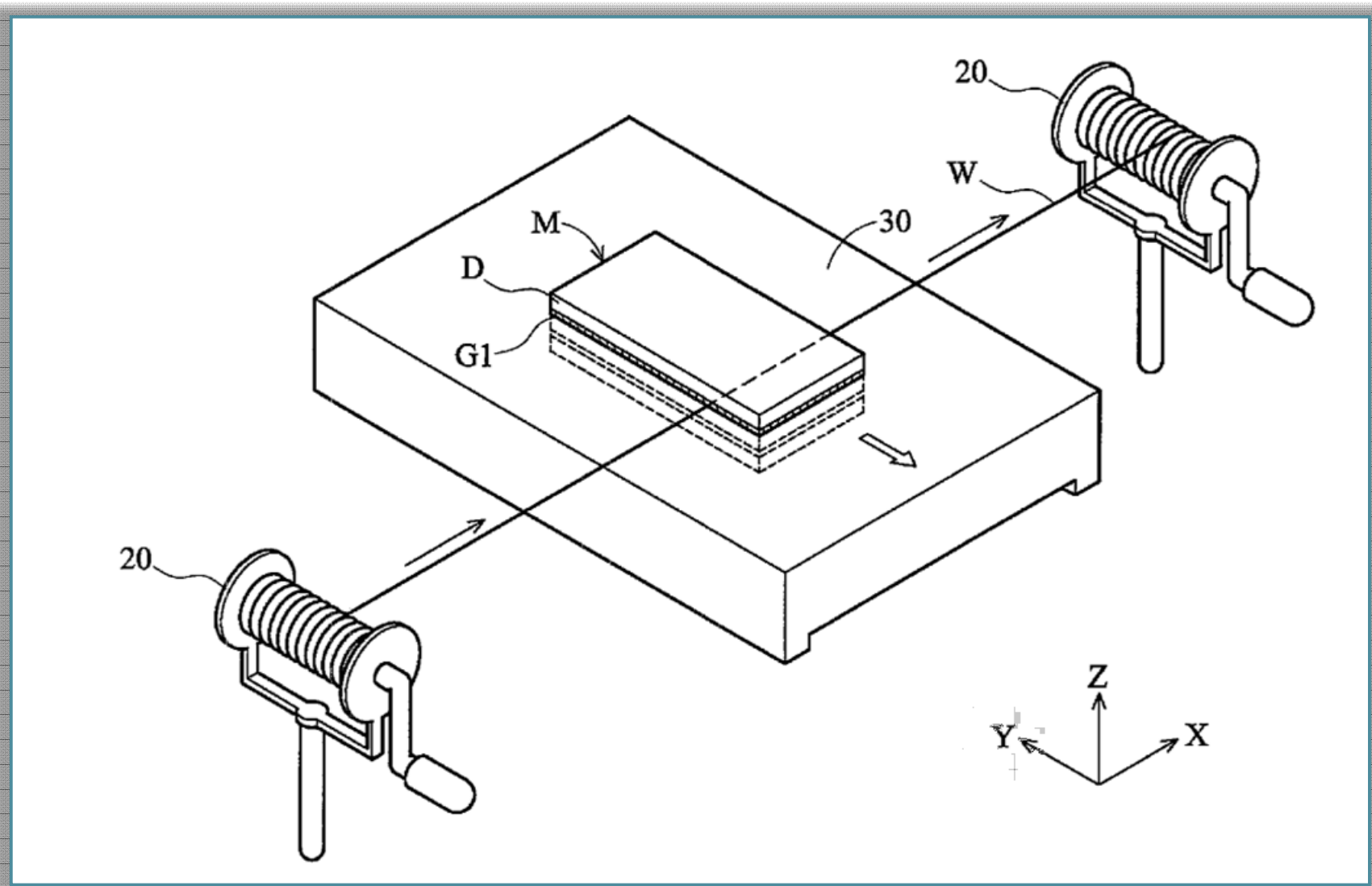
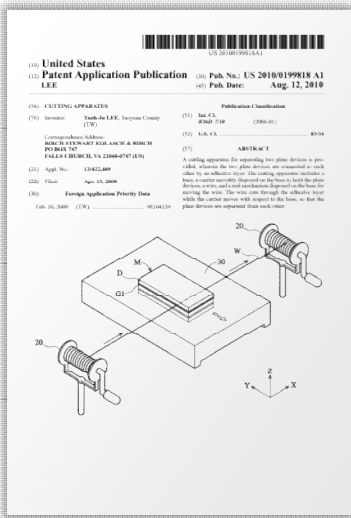
Claim Language	Defendants' Construction	Plaintiff's Construction
"coplanar" (All Asserted Claims)	"in the same plane"	"in a same plane"

Claim Language	Defendants' Construction	Plaintiff's Construction
"aligning a cutting device/wire in a coplanar relationship with the intermediate layer" (All Asserted Claims)	Indefinite	Not indefinite

ISSUE:

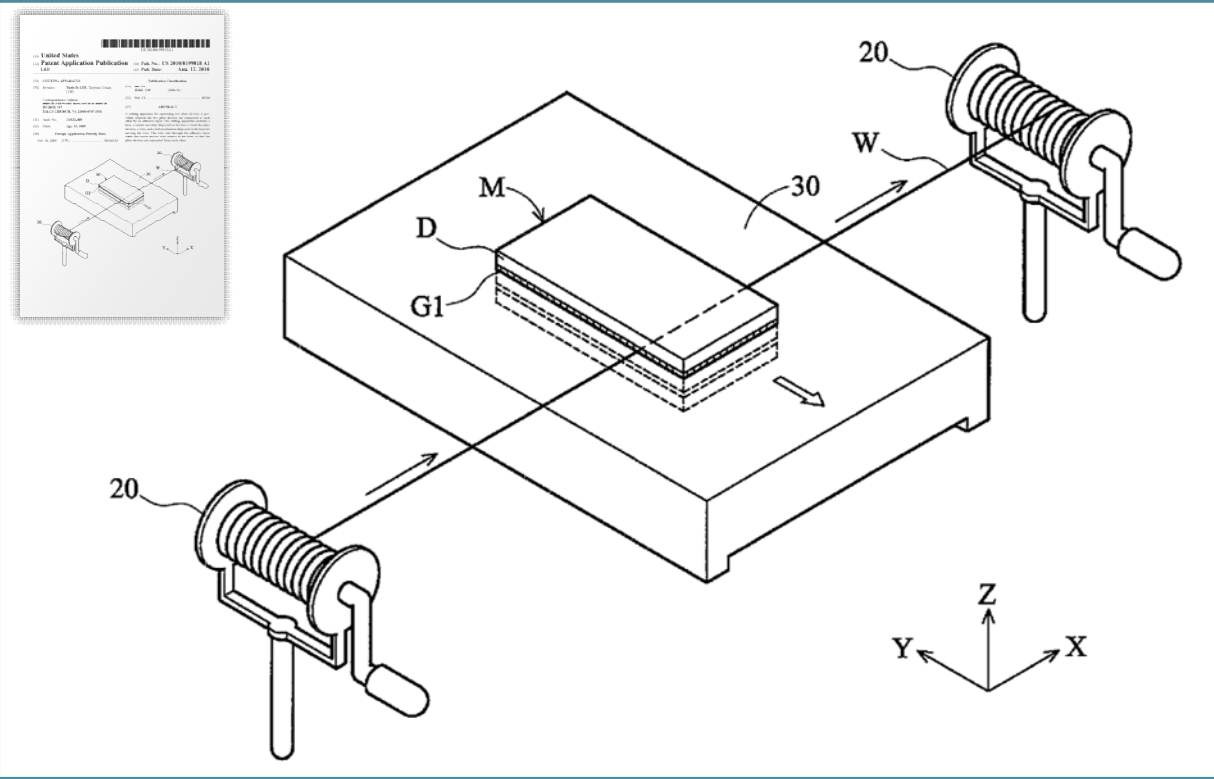
- Plaintiff's construction is inconsistent with basic geometry
- Plaintiffs admit they aren't using terms in a geometric way

Generic Cutting Machines Were Known



US 2010/0199818 to Lee from the '537 Patent File History (e.g., 2014-10-08 Non-Final Rejection).

Applicant's Machine Is Different



US 2010/0199818 to Lee from the 537 Patent File History (e.g., 2014-10-08 Non-Final Rejection).

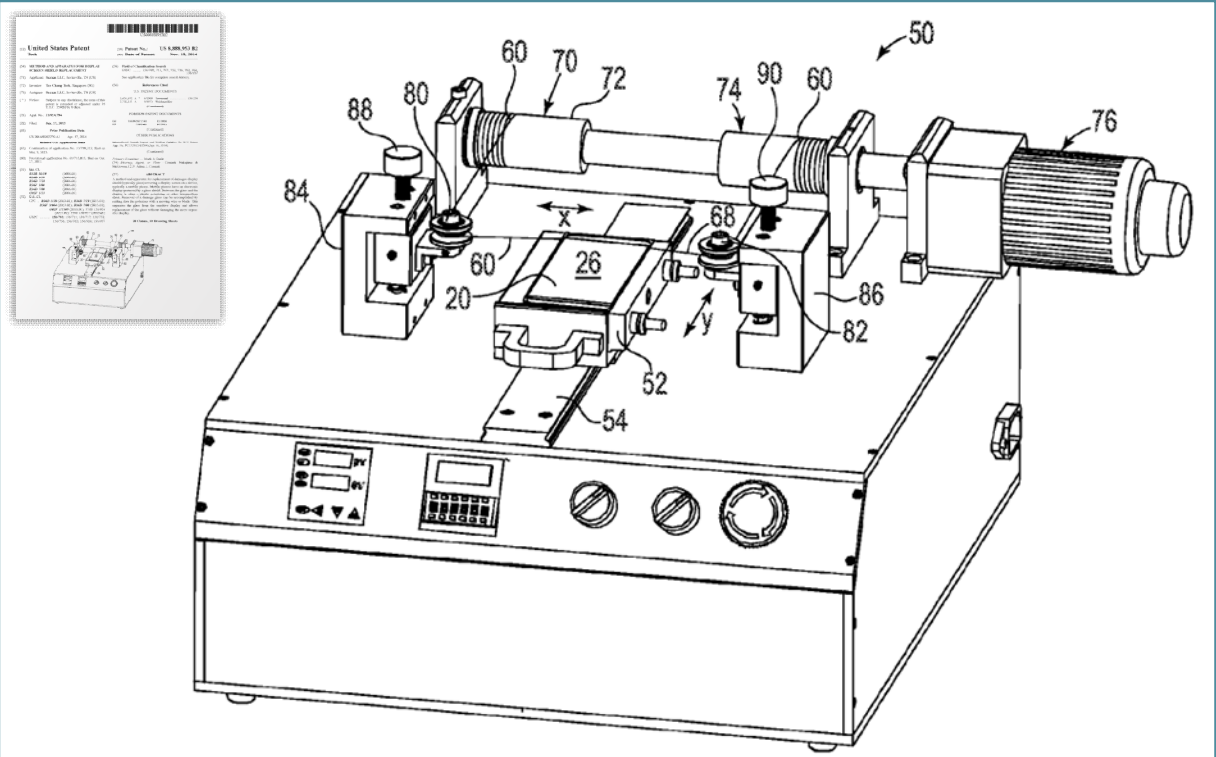
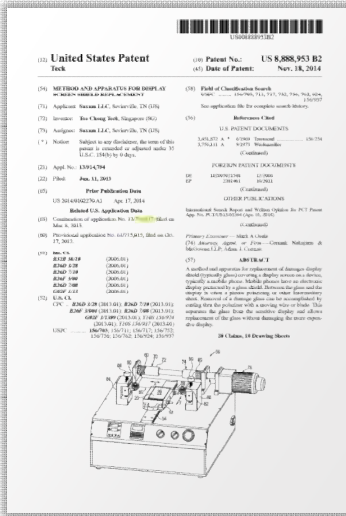


Fig. 1

'953 Patent, Fig. 1.

Claim 1 and Figure 7 of the '953 Patent



1. A method of removing a protective glass top surface from a display unit having a glass top, an electronic display portion, and an intermediate layer therebetween, the display unit defining an axis extending along said intermediate layer, the method comprising the steps of:

fixing the display unit in a carriage with the intermediate layer being exposed on all sides;

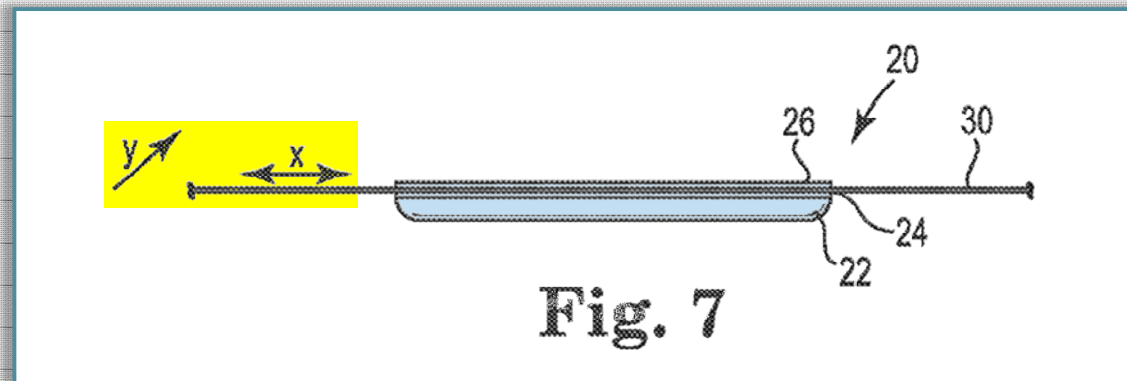
aligning a cutting device in a coplanar relationship with the intermediate layer;

biasing the cutting device in the intermediate layer adjacent the electronic display portion and away from the glass,

driving the cutting device into the intermediate layer while moving the cutting device and display unit relative to each other along a diagonal direction relative to said display unit axis;

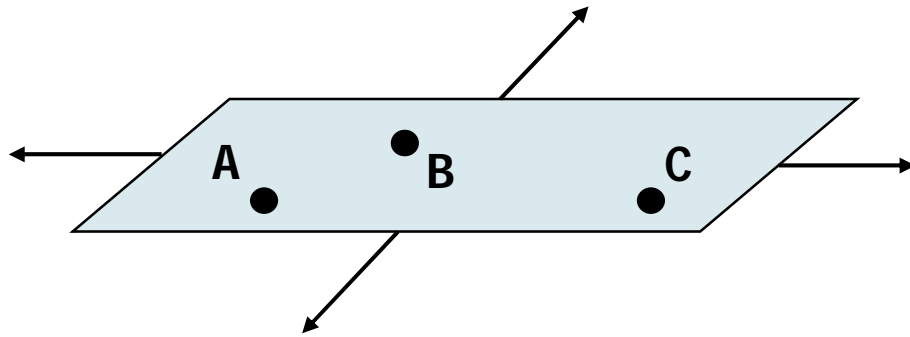
advancing the cutting device into the intermediate layer to separate the glass top from the electronic display portion.

'953 Patent, Cl. 1.

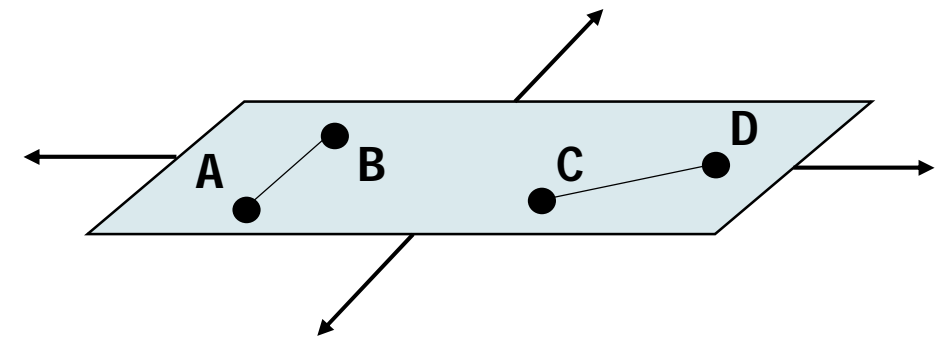


'953 Patent, Fig. 7.

"Coplanar" Is Simple Geometry Plaintiff Wishes to Evade

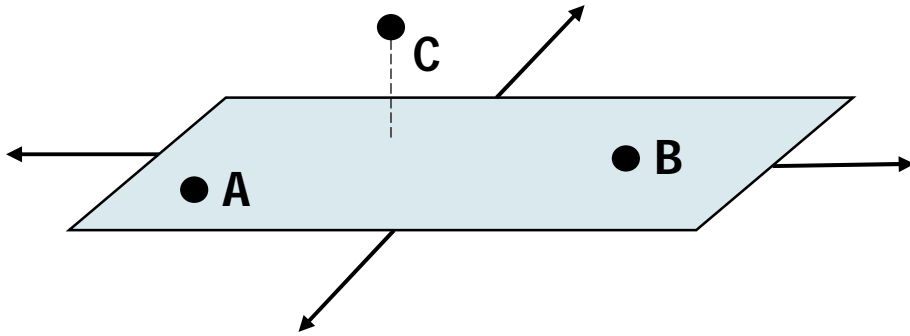


3 "Coplanar" Points On A Plane

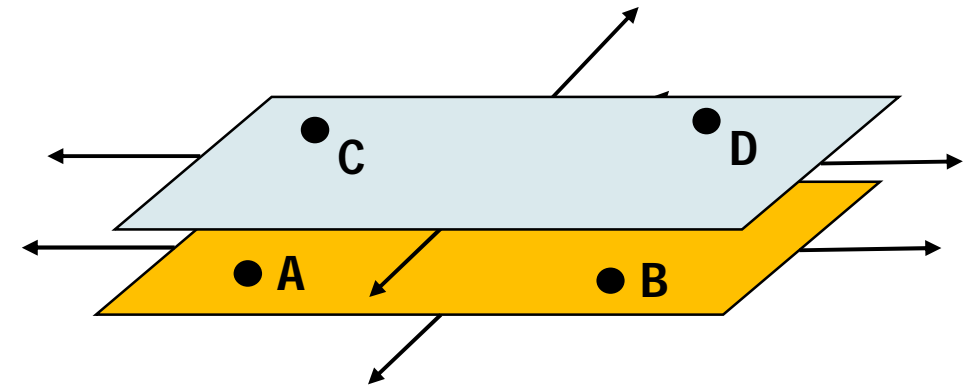


Lines AB and CD are "Coplanar"

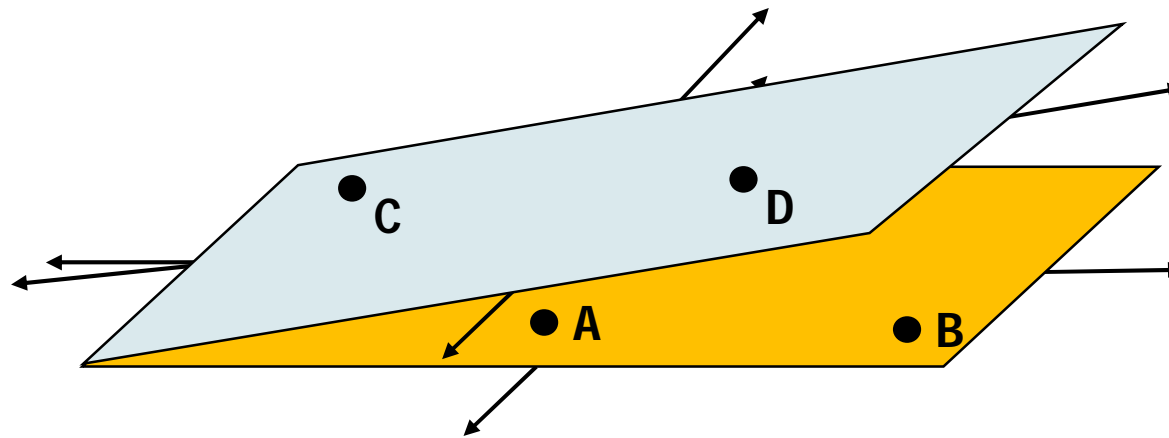
What Is Not Coplanar



A Point On Different Plane (Point C)
Is Not Coplanar With Points A & B



Parallel Planes;
Points A & B Are Not Coplanar With Points C & D



2 Intersecting Planes;
Points A & B Are Not "Coplanar" With Points C & D

Machine Aligns Cutting Device In Coplanar Relationship With Intermediate Layer

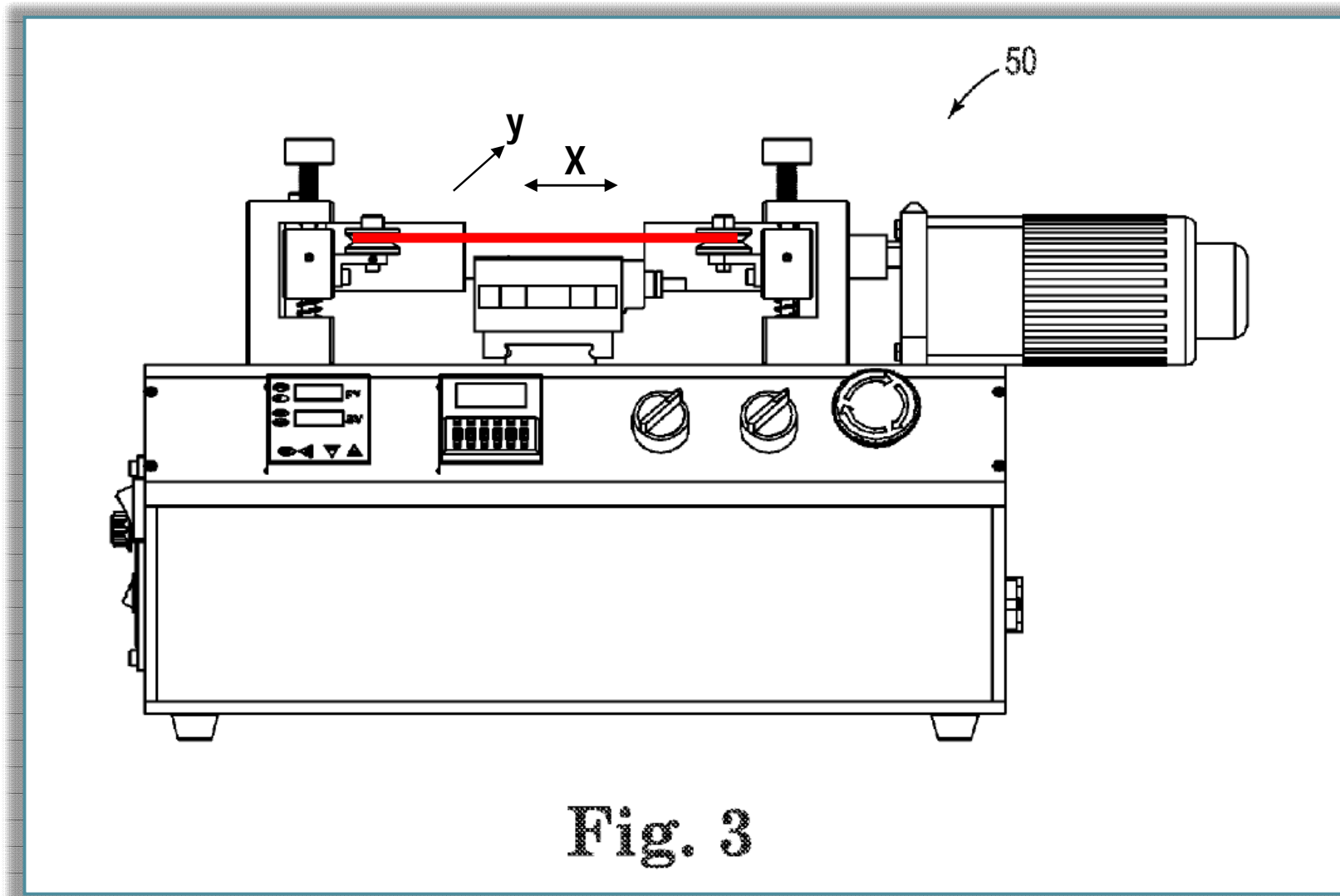
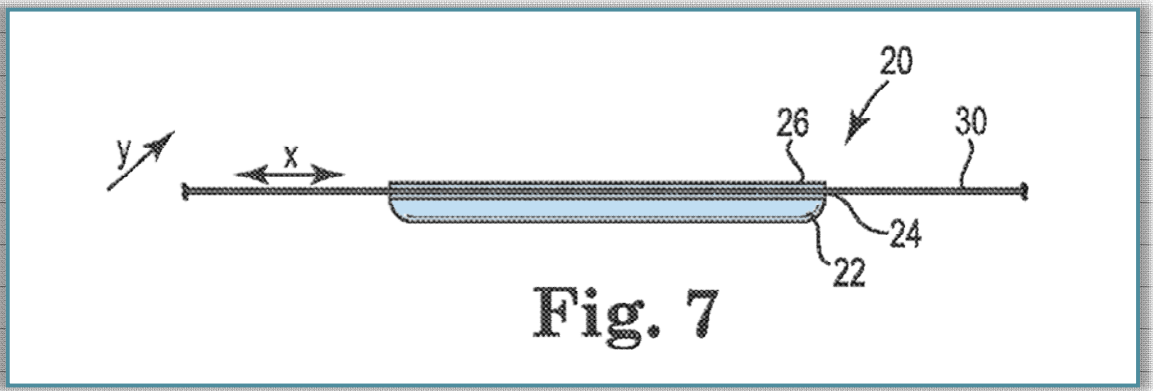
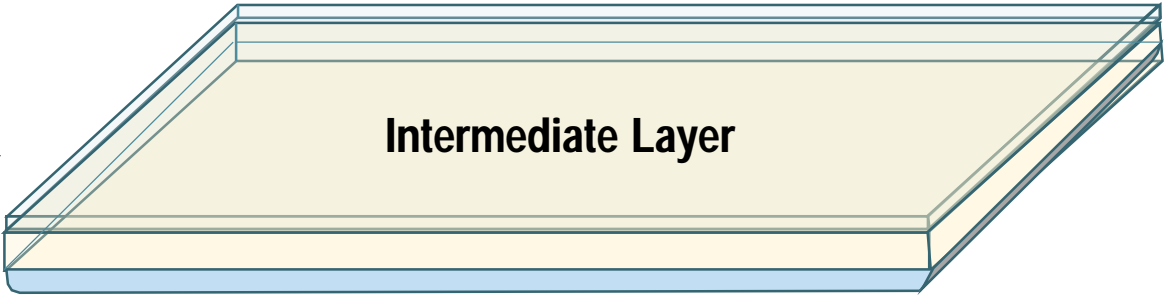
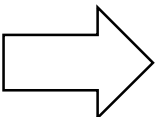


Figure 7 of the '953 Patent

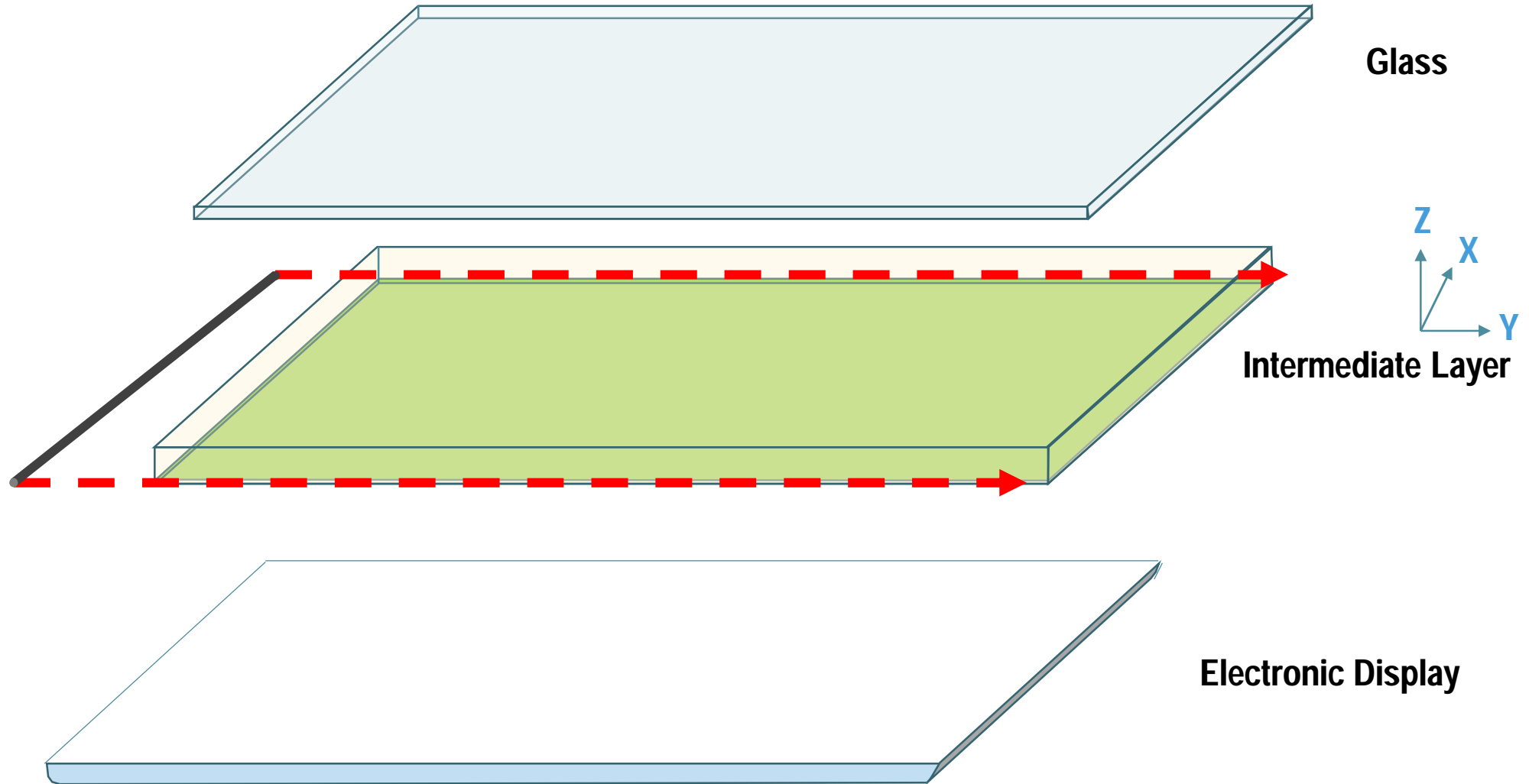


953 Patent, Fig. 7

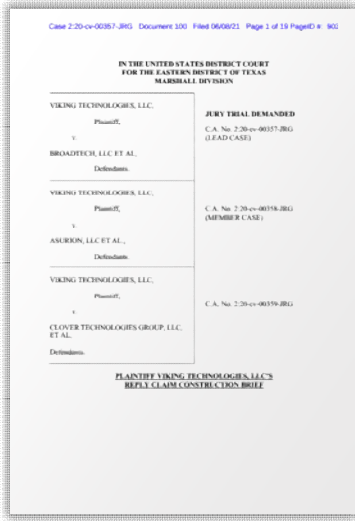


Electronic
Display

Coplanar Should Be "The" Same Plane



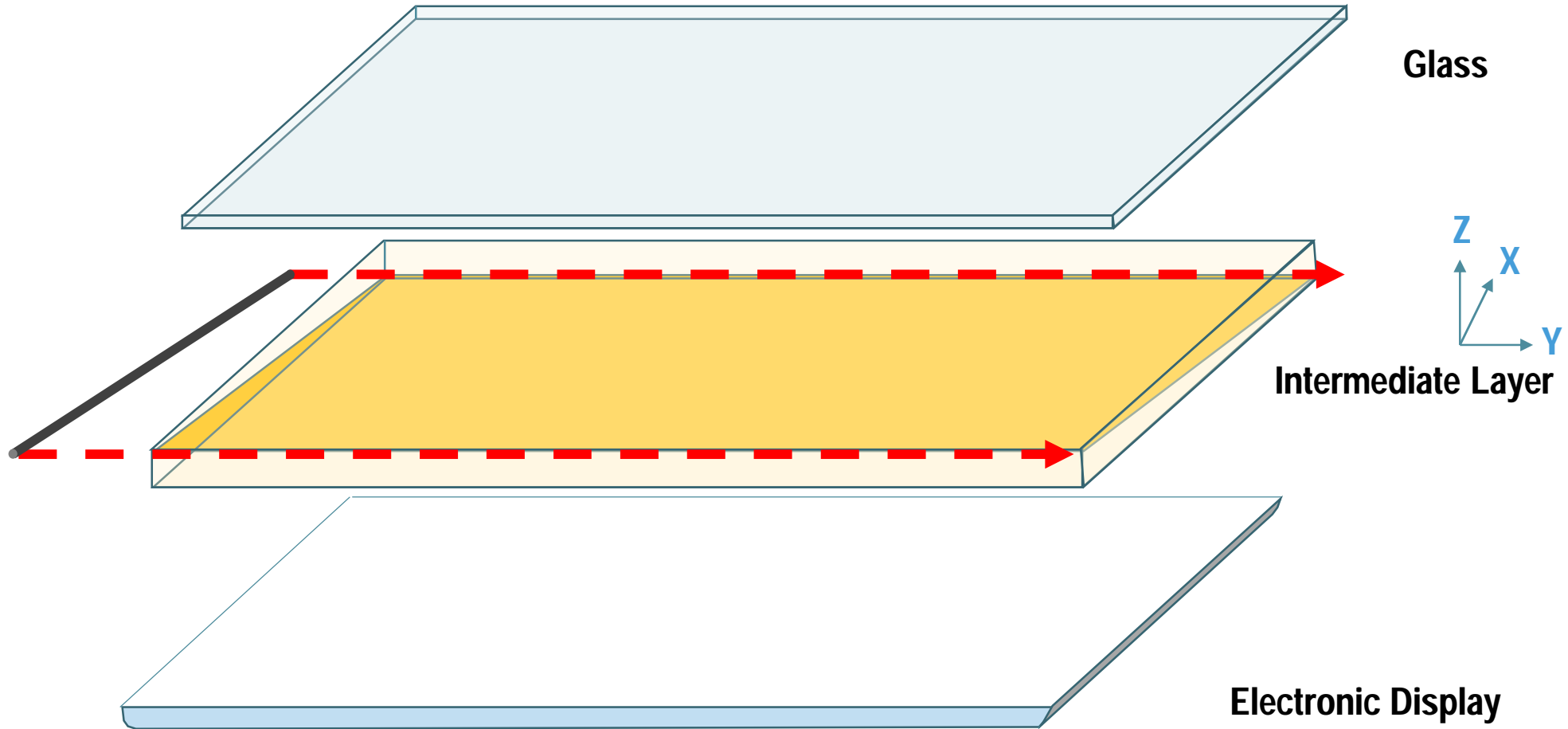
“Coplanar” Is Simple Geometry Plaintiff Wishes to Evade



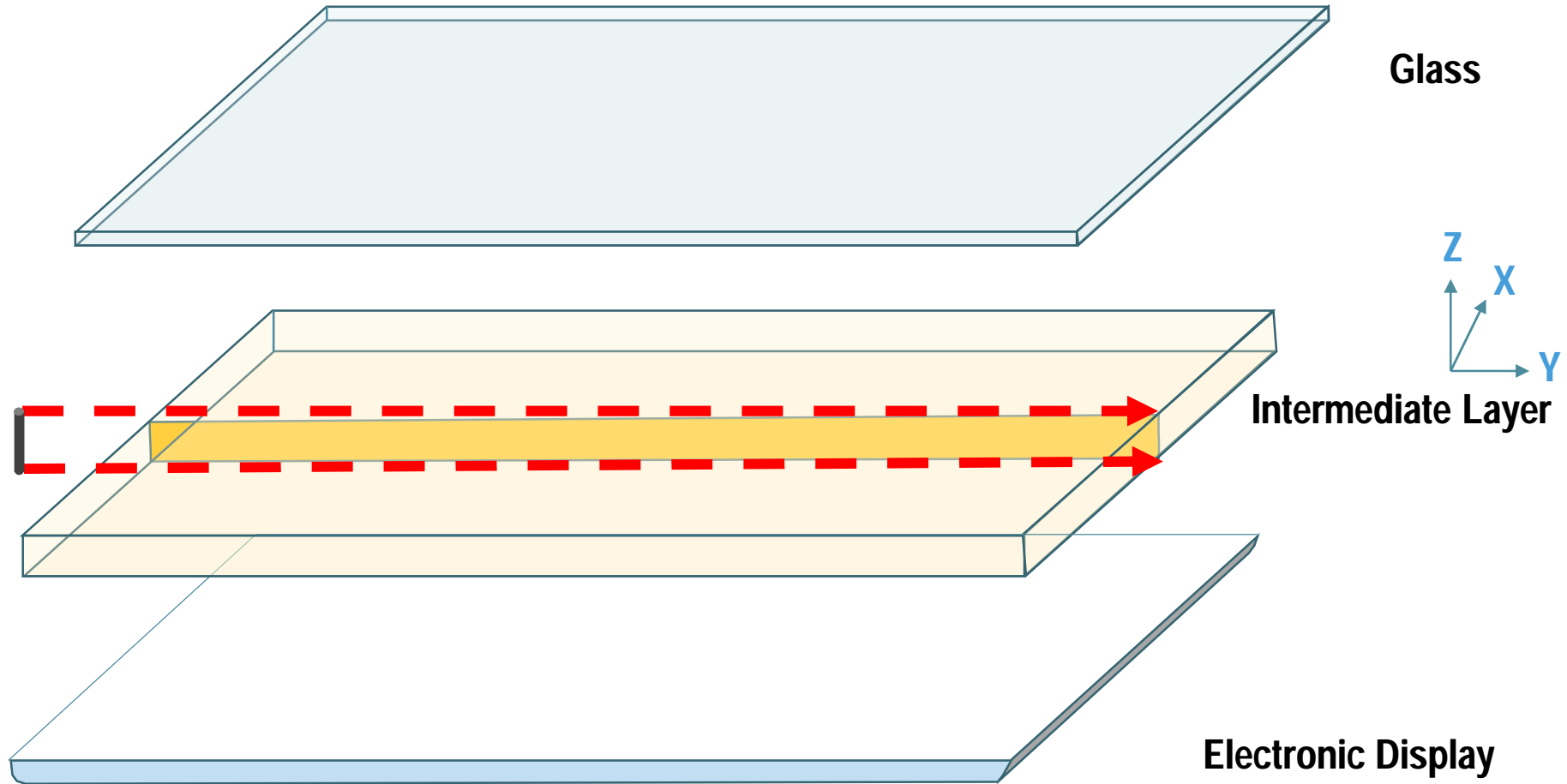
98 at 18.) Defendants’ argument ignores all context. While a geometry professor may not use the phrase “coplanar” to describe three-dimensional objects, that has nothing to do with how the term is used in the Asserted Patents. By Defendants’ logic all patent claims using the term “coplanar,” “parallel,” and “perpendicular” would be indefinite because the geometric definition of each of those terms is inapplicable to three-dimensional objects. Here, the Asserted Patents use the phrase “coplanar relationship” in a real-world context that is readily understandable. Courts, including

Plaintiff’s Reply Br. (Dkt. No. 100) at 12.

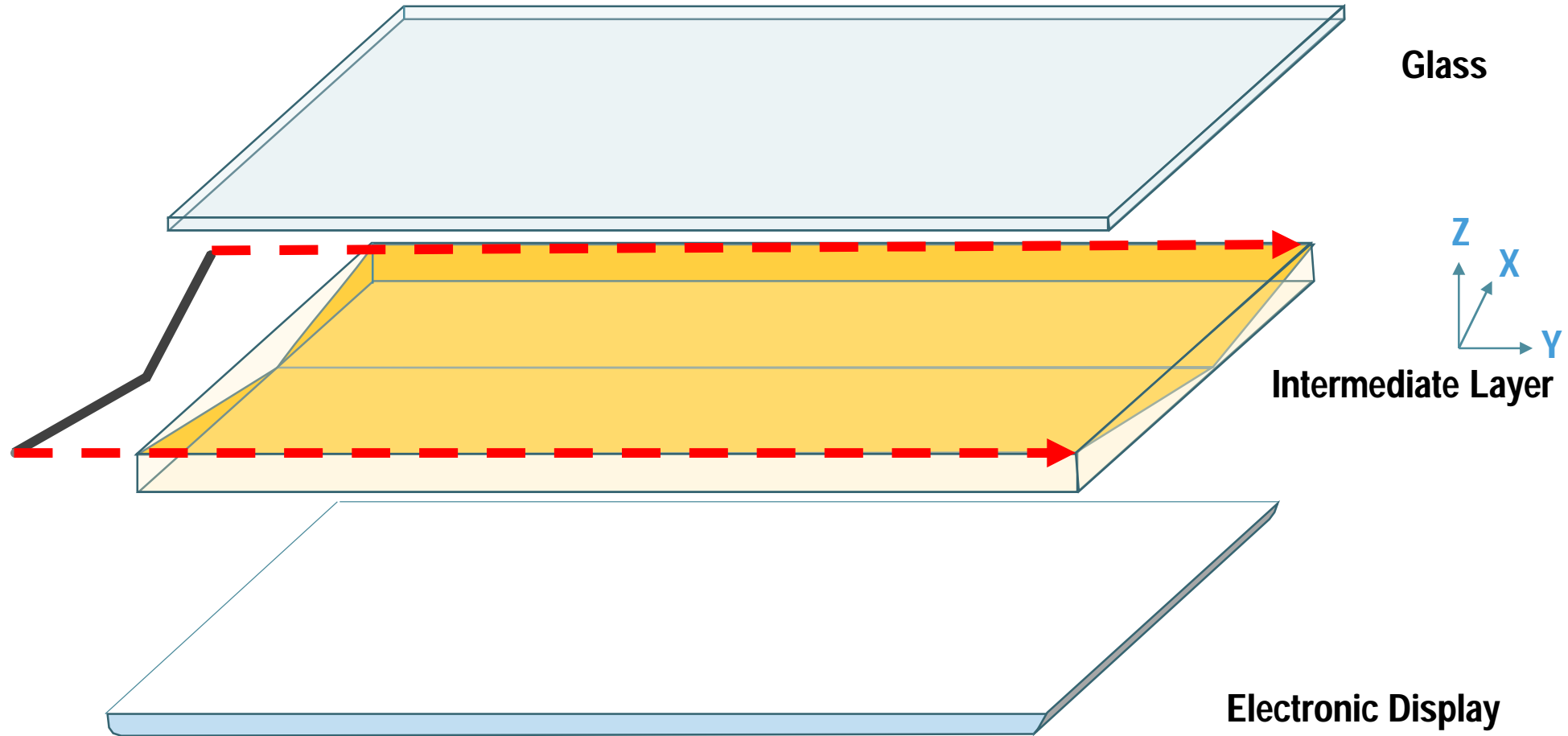
Coplanar Should Not Be “A” Same Plane



Coplanar Should Not Be "A" Same Plane



Coplanar Should Not Be “A” Same Plane



Plaintiff Reads Out Coplanar

aligning a cutting device in a ~~coplanar~~ relationship with the intermediate layer;

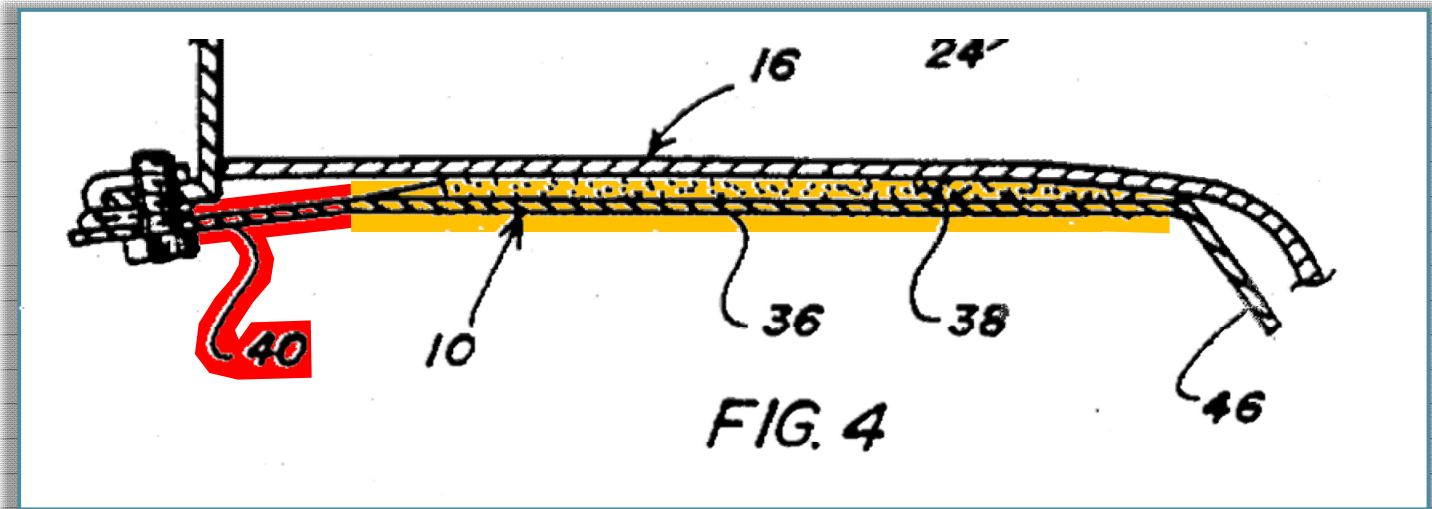
'953 Patent, Cl. 1.

The Cases Support Defendants' Position

“Based on the above, this Court concludes that the terms “coplanar” and “noncoplanar” refer to whether or not **all of the hub legs lie in the same plane**”

“[A]ll of the hub legs lie within **the same plane**, or are **coplanar**”

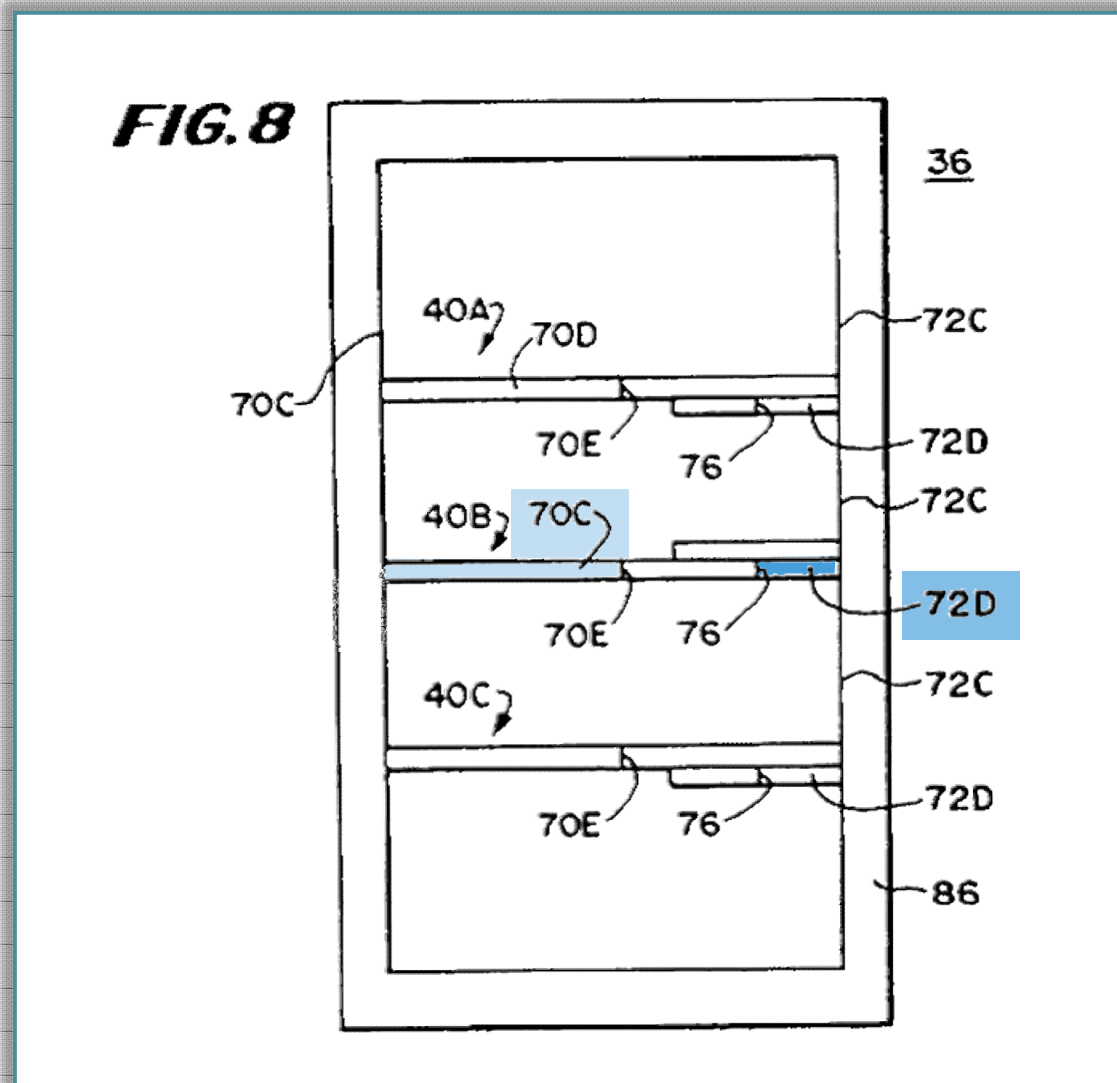
Graco Children's Prod., Inc. v. Regalo Int'l LLC, 2000 WL 1123260, at *5 (E.D. Pa. Aug. 8, 2000) (emphasis added).



'710 Patent, Fig. 4 from *Waner v. Ford Motor Co.*, 331 F.3d 851, 854 (Fed. Cir. 2003).

Red and Orange Are Not Coplanar

Other Cases Support Defendants' Position



The Blue Regions Are Coplanar